

WHAT IS CLAIMED IS:

1 1. A printing process control method provided in a  
2 terminal apparatus comprising a storing means which  
3 stores image data to be printed and a control means  
4 which performs short distance wireless communication  
5 with a printing apparatus, wherein,  
6       said control means obtains from the printing  
7 apparatus, information regarding an attribute of the  
8 apparatus,  
9       said control means determines whether or not said  
10 printing apparatus supports a predetermined expanded  
11 specification, based on the information regarding the  
12 attribute thus obtained,  
13       when it is determined that the printing apparatus  
14 supports said predetermined expanded specification,  
15 data obtained by processing said image data to be  
16 printed according to said predetermined expanded  
17 specification is transmitted to said printing  
18 apparatus in a predetermined file format, and when it  
19 is determined that said printing apparatus does not  
20 support said predetermined expanded specification,  
21 data for identifying said image data to be printed is  
22 transmitted to said printing apparatus in a

23 predetermined file format.

1 2. The printing process control method according to  
2 claim 1, wherein,  
3 said predetermined expanded specification is  
4 MIME (Miltipurpose Internet Mail Extension).

1 3. The printing process control method according to  
2 either of claim 1 and claim 2, wherein,  
3 said predetermined file format is XHTML  
4 (Extensible Hypertext Markup Language).

1 4. The printing process control method according to  
2 claim 1, wherein,  
3 said control means obtains information from said  
4 printing apparatus, information regarding a function  
5 of the printing apparatus, in addition to the  
6 information regarding the attribute of said printing  
7 apparatus, and displays a print settings accepting  
8 screen having been modified based on said information  
9 thus obtained regarding the function of the printing  
10 apparatus, prior to transmitting data in said  
11 predetermined file format to said printing apparatus.

1 5. A terminal apparatus which performs short distance

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2 wireless communication with a printing apparatus,  
3 comprising,  
4 a storing means which stores image data to be  
5 printed,  
6 an attribute information obtaining means which  
7 obtains from the printing apparatus, information  
8 regarding an attribute of the apparatus,  
9 a determining means which determines whether or  
10 not said printing apparatus supports a predetermined  
11 expanded specification, based on said information  
12 regarding the attribute and  
13 a transmission control means in which when it is  
14 determined that said printing apparatus supports said  
15 predetermined expanded specification, data obtained  
16 by processing said image data to be printed according  
17 to said predetermined expanded specification is  
18 transmitted to said printing apparatus in a  
19 predetermined file format, and when it is determined  
20 that said printing apparatus does not support said  
21 predetermined expanded specification, data for  
22 identifying said image data to be printed is  
23 transmitted to said printing apparatus in a  
24 predetermined file format.

1 6. The short distance wireless communication terminal

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2 apparatus according to claim 5, further comprising,  
3 a function information obtaining means which  
4 obtains from the printing apparatus, information  
5 regarding the function of the apparatus, and  
6 a print settings accepting means which displays  
7 a print settings accepting screen having been modified  
8 based on said information thus obtained regarding the  
9 function of the printing apparatus.

1 7. A short distance wireless communication printing  
2 system provided with a printing apparatus and a  
3 terminal apparatus performing short distance wireless  
4 communication with said printing apparatus, wherein,  
5 said printing apparatus comprises,  
6 an attribute information responding means which  
7 makes a response as to information regarding an  
8 attribute of the printing apparatus itself, in  
9 response to a request from outside, and  
10 said short distance wireless communication  
11 terminal apparatus comprises,  
12 a storing means which stores image data to be  
13 printed,  
14 an attribute information obtaining means which  
15 obtains from said printing apparatus, information  
16 regarding an attribute of the apparatus,

. . . .  
17           a determining means which determines whether or  
18 not said printing apparatus supports a predetermined  
19 expanded specification based on said information  
20 regarding the attribute,

21           a transmission control means in which when it is  
22 determined that said printing apparatus supports said  
23 predetermined expanded specification, data obtained  
24 by processing said image data to be printed according  
25 to said predetermined expanded specification is  
26 transmitted to said printing apparatus in a  
27 predetermined file format, and when it is determined  
28 that said printing apparatus does not support said  
29 predetermined expanded specification, data for  
30 identifying said image data to be printed is  
31 transmitted to said printing apparatus in a  
32 predetermined file format.

1   8. The short distance wireless communication printing  
2 system according to claim 7, wherein,

3           said printing apparatus further comprises,

4           a function information responding means which  
5 makes a response as to information regarding a function  
6 of the printing apparatus itself, in response to a  
7 request from the outside, and

8           and said short distance wireless communication

terminal apparatus further comprises,  
a function information obtaining means which  
obtains from said printing apparatus, information  
regarding the function of the apparatus, and  
a print settings accepting means which displays  
a print settings accepting screen having been modified  
based on said information thus obtained regarding the  
function of the printing apparatus.

9. A recording medium which records a program that is  
executed in a terminal apparatus comprising a storing  
means which stores image data to be printed and  
performing short distance wireless communication with  
a printing apparatus, wherein,  
said program allows said terminal apparatus to  
function as,  
an attribute information obtaining means which  
obtains from the printing apparatus, information  
regarding an attribute of the apparatus,  
a determining means which determines whether or  
not said printing apparatus supports a predetermined  
expanded specification based on said information  
regarding the attribute,  
a transmission control means in which when it is  
determined that said printing apparatus supports said

. . . .

17 predetermined expanded specification, data obtained  
18 by processing said image data to be printed according  
19 to said predetermined expanded specification is  
20 transmitted to said printing apparatus in a  
21 predetermined file format, and when it is determined  
22 that said printing apparatus does not support said  
23 predetermined expanded specification, data for  
24 identifying said image data to be printed is  
25 transmitted to said printing apparatus in a  
26 predetermined file format.

1 10. A terminal apparatus which performs short  
2 distance wireless communication with printing  
3 apparatuses, comprising,  
4 a list displaying means which displays a list of  
5 printing apparatuses available for communication, and  
6 accepts a selection of the printing apparatus which  
7 is used for printing,  
8 a search requesting means which issues a search  
9 request for devices,  
10 a printing apparatus extraction means which  
11 extracts a printing apparatus from the devices  
12 responding to said search request,  
13 a printing apparatus information requesting  
14 means which requests information regarding said

15 printing apparatus from said printing apparatus thus  
16 extracted,

17 a determining means which determines whether or  
18 not information in response to said printing apparatus  
19 information request satisfies a predetermined  
20 condition, and

21 a printing apparatus registering means in which  
22 when it is determined said condition is satisfied,  
23 information for identifying said printing apparatus  
24 is registered in a higher order of the list, and when  
25 it is determined said condition is not satisfied, the  
26 information for identifying the printing apparatus is  
27 registered in a lower order of the list.

1 11. The terminal apparatus according to claim 10,  
2 wherein,

3 said determining means determines as said  
4 predetermined condition, whether or not a manufacturer  
5 of said printing apparatus included in the response  
6 information to said printing apparatus information  
7 request is a predetermined manufacturer.

1 12. The terminal apparatus according to claim 11,  
2 wherein,

3 said predetermined manufacturer is identical to



. . . . .  
4 a developer of a program to control printing process  
5 in the terminal apparatus.

1 13. The terminal apparatus according to claim 11,  
2 wherein,  
3 said printing apparatus registering means sorts  
4 the order in the list as to the information which  
5 identifies a printing apparatus determined as  
6 satisfying the predetermined condition, based on a  
7 predetermined order of priority, after the printing  
8 apparatus is registered into a list of communication  
9 available printing apparatus.

1 14. The terminal apparatus according to claim 13,  
2 wherein,  
3 said predetermined order of priority is a order  
4 given to each model.

1 15. The terminal apparatus according to claim 10,  
2 wherein,  
3 information for identifying a printing apparatus  
4 which said printing apparatus registering means  
5 registers in said list is a manufacturer name of said  
6 printing apparatus and a model name of said printing  
7 apparatus, which are included in the response

8 information to said printing apparatus information  
9 request.

1 16. A terminal apparatus which performs short distance  
2 wireless communication with printing apparatuses,  
3 comprising,  
4 a list displaying means which displays a list of  
5 printing apparatuses and accepts a selection of a  
6 printing apparatus to be used for printing,  
7 a search requesting means which issues a search  
8 request for devices,  
9 a printing apparatus extracting means which  
10 extracts a printing apparatus from the devices which  
11 respond to said search request,  
12 a printing apparatus information requesting  
13 means which requests information regarding said  
14 printing apparatus from thus extracted printing  
15 apparatus,  
16 a determining means which determines whether or  
17 not the response information to said printing  
18 apparatus information request satisfies a  
19 predetermined condition, and  
20 a printing apparatus registering means which  
21 registers into a list, information for identifying the  
22 printing apparatus, when it is determined that the

23 printing apparatus satisfies said condition.

1 17. A recording medium which records a print control  
2 program executed in a terminal apparatus that performs  
3 short distance wireless communication with printing  
4 apparatuses, wherein,

5       said print control program allows the terminal  
6 apparatus to function as

7       a list displaying means which displays a list of  
8 printing apparatuses available for communication, and  
9 accepts a selection of the printing apparatus which  
10 is used for printing,

11       a determining means which determines whether or  
12 not information regarding said printing apparatus  
13 obtained from a communication available printing  
14 apparatus satisfies a predetermined condition, and

15       a printing apparatus registering means in which  
16 when it is determined said condition is satisfied,  
17 information for identifying said printing apparatus  
18 is registered in a higher order of the list, and when  
19 it is determined said condition is not satisfied, the  
20 information for identifying the printing apparatus is  
21 registered in a lower order of the list.

1 18. A list displaying control method in a terminal

2 apparatus which performs short distance wireless  
3 communication with printing apparatuses, said list  
4 displaying control method displaying a list of  
5 communication available printing apparatuses and  
6 accepts a selection of the printing apparatus used for  
7 printing, comprising,  
8       a search requesting step which issues a search  
9 request for devices,  
10       a printing apparatus extracting step which  
11 extracts a printing apparatus from devices which have  
12 responded to said search request,  
13       a printing apparatus information requesting step  
14 which requests information regarding said printing  
15 apparatus from said printing apparatus thus extracted,  
16       a determining step which determines whether or  
17 not information in response to said printing apparatus  
18 information request satisfies a predetermined  
19 condition, and  
20       a printing apparatus registering step in which  
21 when it is determined said condition is satisfied,  
22 information for identifying said printing apparatus  
23 is registered in a higher order of the list, and when  
24 it is determined said condition is not satisfied, the  
25 information for identifying the printing apparatus is  
26 registered in a lower order of the list.